

**Phospho-SQSTM1(S403) Antibody**  
**Affinity Purified Rabbit Polyclonal Antibody (Pab)**  
**Catalog # AP3802a**

**Specification**

**Phospho-SQSTM1(S403) Antibody - Product Information**

|                   |                                                                                     |
|-------------------|-------------------------------------------------------------------------------------|
| Application       | DB,E                                                                                |
| Primary Accession | <a href="#">Q13501</a>                                                              |
| Other Accession   | <a href="#">O08623</a> , <a href="#">Q64337</a> ,<br><a href="#">NP_001135770.1</a> |
| Reactivity        | Human                                                                               |
| Predicted         | Mouse, Rat                                                                          |
| Host              | Rabbit                                                                              |
| Clonality         | Polyclonal                                                                          |
| Isotype           | Rabbit Ig                                                                           |
| Calculated MW     | 47687                                                                               |

**Phospho-SQSTM1(S403) Antibody - Additional Information**

**Gene ID 8878**

**Other Names**

Sequestosome-1, EBI3-associated protein of 60 kDa, EBIAP, p60, Phosphotyrosine-independent ligand for the Lck SH2 domain of 62 kDa, Ubiquitin-binding protein p62, SQSTM1, ORCA, OSIL

**Target/Specificity**

This SQSTM1 Antibody is generated from rabbits immunized with a KLH conjugated synthetic phosphopeptide corresponding to amino acid residues surrounding S403 of human SQSTM1.

**Dilution**

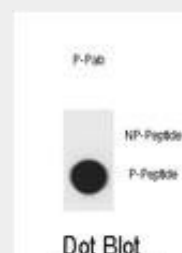
DB~~1:500

**Format**

Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is purified through a protein A column, followed by peptide affinity purification.

**Storage**

Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C



Dot blot analysis of SQSTM1 Antibody (Phospho S403) Phospho-specific Pab (Cat. #AP3802a) on nitrocellulose membrane. 50ng of Phospho-peptide or Non Phospho-peptide per dot were adsorbed. Antibody working concentrations are 0.6ug per ml.

**Phospho-SQSTM1(S403) Antibody - Background**

This gene encodes a multifunctional protein that binds ubiquitin and regulates activation of the nuclear factor kappa-B (NF-κB) signaling pathway. The protein functions as a scaffolding/adaptor protein in concert with TNF receptor-associated factor 6 to mediate activation of NF-κB in response to upstream signals. Alternatively spliced transcript variants encoding either the same or different isoforms have been identified for this gene. Mutations in this gene result in sporadic and familial Paget disease of bone.

**Phospho-SQSTM1(S403) Antibody - References**

Visconti, M.R., et al. J. Bone Miner. Res. 25(11):2368-2373(2010) Ding, W.X., et al. J. Biol. Chem. 285(36):27879-27890(2010) Gao, C., et al. Nat. Cell Biol. 12(8):781-790(2010) Jain, A., et al. J. Biol. Chem. 285(29):22576-22591(2010) Lau, A., et al. Mol. Cell. Biol. 30(13):3275-3285(2010)

in small aliquots to prevent freeze-thaw cycles.

### **Precautions**

Phospho-SQSTM1(S403) Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

### **Phospho-SQSTM1(S403) Antibody - Protein Information**

#### **Name** SQSTM1

#### **Synonyms** ORCA, OSIL

#### **Function**

Autophagy receptor required for selective macroautophagy (aggrephagy). Functions as a bridge between polyubiquitinated cargo and autophagosomes. Interacts directly with both the cargo to become degraded and an autophagy modifier of the MAP1 LC3 family (PubMed:<a href="http://www.uniprot.org/citations/16286508" target="\_blank">16286508</a>, PubMed:<a href="http://www.uniprot.org/citations/20168092" target="\_blank">20168092</a>, PubMed:<a href="http://www.uniprot.org/citations/24128730" target="\_blank">24128730</a>, PubMed:<a href="http://www.uniprot.org/citations/28404643" target="\_blank">28404643</a>, PubMed:<a href="http://www.uniprot.org/citations/22622177" target="\_blank">22622177</a>). Along with WDFY3, involved in the formation and autophagic degradation of cytoplasmic ubiquitin-containing inclusions (p62 bodies, ALIS/aggresome-like induced structures). Along with WDFY3, required to recruit ubiquitinated proteins to PML bodies in the nucleus (PubMed:<a href="http://www.uniprot.org/citations/24128730" target="\_blank">24128730</a>, PubMed:<a href="http://www.uniprot.org/citations/20168092" target="\_blank">20168092</a>). May regulate the activation of NFKB1 by TNF-alpha, nerve growth factor (NGF) and interleukin-1. May play a role in titin/TTN downstream signaling in muscle cells. May regulate signaling cascades through ubiquitination. Adapter that mediates the interaction between TRAF6 and CYLD (By

similarity). May be involved in cell differentiation, apoptosis, immune response and regulation of K(+) channels. Involved in endosome organization by retaining vesicles in the perinuclear cloud: following ubiquitination by RNF26, attracts specific vesicle-associated adapters, forming a molecular bridge that restrains cognate vesicles in the perinuclear region and organizes the endosomal pathway for efficient cargo transport (PubMed:<a href="http://www.uniprot.org/citations/27368102" target="\_blank">27368102</a>). Promotes relocalization of 'Lys-63'-linked ubiquitinated STING1 to autophagosomes (PubMed:<a href="http://www.uniprot.org/citations/29496741" target="\_blank">29496741</a>). Acts as an activator of the NFE2L2/NRF2 pathway via interaction with KEAP1: interaction inactivates the BCR(KEAP1) complex, promoting nuclear accumulation of NFE2L2/NRF2 and subsequent expression of cytoprotective genes (PubMed:<a href="http://www.uniprot.org/citations/20452972" target="\_blank">20452972</a>, PubMed:<a href="http://www.uniprot.org/citations/28380357" target="\_blank">28380357</a>).

#### Cellular Location

Cytoplasm, cytosol. Late endosome. Lysosome. Cytoplasmic vesicle, autophagosome. Nucleus. Endoplasmic reticulum. Nucleus, PML body. Cytoplasm, myofibril, sarcomere. Note=In cardiac muscle, localizes to the sarcomeric band (By similarity). Commonly found in inclusion bodies containing polyubiquitinated protein aggregates. In neurodegenerative diseases, detected in Lewy bodies in Parkinson disease, neurofibrillary tangles in Alzheimer disease, and HTT aggregates in Huntington disease. In protein aggregate diseases of the liver, found in large amounts in Mallory bodies of alcoholic and nonalcoholic steatohepatitis, hyaline bodies in hepatocellular carcinoma, and in SERPINA1 aggregates Enriched in Rosenthal fibers of pilocytic astrocytoma. In the cytoplasm, observed in both membrane-free ubiquitin-containing protein aggregates (sequestosomes) and membrane-surrounded autophagosomes Colocalizes with TRIM13 in the perinuclear endoplasmic reticulum. Co- localizes with TRIM5 in cytoplasmic bodies. When nuclear

export is blocked by treatment with  
leptomycin B, accumulates in PML bodies

**Tissue Location**

Ubiquitously expressed.

**Phospho-SQSTM1(S403) Antibody -  
Protocols**

Provided below are standard protocols that you  
may find useful for product applications.

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)